

### REMARKS

Claims 1 to 20 are pending. Claim 17 has been withdrawn from consideration.

### TELEPHONE INTERVIEW

The Applicants hereby gratefully acknowledge the telephonic interview conducted on December 23, 2005, between Examiner Hu and the Applicants' representative. The Applicants appreciate the courtesies extended by Examiner Hu.

The Applicants discussed with Examiner Hu the restriction requirement and the basis therefore. While the Applicants understand Examiner Hu to have recognized the fact that Group II (Claim 17) is related to a species of Group I (e.g., Claim 1), Examiner Hu has maintained the restriction requirement, asserting that the terpolymer of Group II would behave differently than "almost all" of the copolymers from Group I.

### ADVISORY ACTION

The Applicants also gratefully acknowledge the Advisory Action prepared by Examiner Hu, which is dated January 6, 2006. The Advisory Action provides substantially the same comments as the interview summary dated January 3, 2006.

### OBJECTIONS TO THE SPECIFICATION

The Applicants acknowledge the withdrawal of all outstanding objections to the specification.

### CLAIM OBJECTIONS

The Applicants also acknowledge the withdrawal of all outstanding objections to the claims.

### CLAIM REJECTIONS UNDER 35 USC § 102/103(a) AND 103(a)

The Patent Office rejected claims 1-15 and 18-20 35 U.S.C. 102(a) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Grootaert et al. (WO 02/060968 A1, which is equivalent to its US 6,730,760 B2) [hereinafter '760].

The Patent Office observes that '760 discloses that some cured samples contain fluorinated copolymers similar to those described in claim 1 have a Shore A hardness of 78 from the measurement with ASTM D2240-85 method (citing column 12, line 24; column 11, line 20-22). However, with respect to other claimed properties of the vulcanized product, the Patent Office admits that '760 is silent about (A) a TR-10 of  $-25^{\circ}\text{C}$  or less and (B) a permeation of 65 (g-mm/m<sup>2</sup>-day) or less.

To overcome this deficiency in '760, the Patent Office asserts that '760 and the present invention recite a "substantially identical curable composition comprising fluorinated copolymers made from a claimed perfluoroalkoxyalkyl vinyl ether and may be polymerized in the same process". Therefore, the Patent Office asserts, a reasonable basis exists to believe that the products of the invention inherently possess the same vulcanized properties with respect to TR-10 and permeation. The Patent Office then concludes that these assertions shift the burden of proof to Applicants to show otherwise. (citing *In re Best*, 195 USPQ 430 (CCPA 1977) and MPEP § 2112-2112.02).

With the Grootaert Affidavit filed herewith, the Applicants have met that burden of proof and have shown that the description in '760 does not teach, suggest or describe the invention described in claim 1. Supplied in the Grootaert Affidavit is data relating to the TR-10 of several copolymers that are substantially identical in monomer content to those described in '760. Considering the tolerances and reproducibility of copolymer manufacturing processes, these are the closest to the Examples from '760 as can reasonably be prepared.

In his affidavit, Dr. Grootaert, one of the named co-inventors of the '760 patent, states that to the best of his knowledge and belief, based upon the data provided in the Grootaert Affidavit, none of the Examples described in the '760 patent have the characteristics such that upon vulcanization the resulting compound would be expected to have a TR-10 of  $-25^{\circ}\text{C}$  or less. Because TR-10 data was not measured in the Examples of the '760 patent, the data provided in the Grootaert Affidavit is the closest data currently available to evaluate the inherent properties of the compositions described in '760. A comparison of this closest available data to the compositions of claim 1, leads Dr. Grootaert to conclude that the compositions described in claim 1 of the present application are not described in '760.

The Applicants have also provided this proof, as indicated in the response to the First Office Action (paper #10, filed September 15, 2005), in the Examples and Comparative Examples of the present application. Particularly, the Applicants have presented the surprising results that not all levels of conventional additives give a compound having “a Shore A hardness according to ASTM D2240 of 60 or greater, a TR-10 of  $-25^{\circ}\text{C}$  or less, and a permeation rate of 65 ( $\text{g}\cdot\text{mm}/\text{m}^2\cdot\text{day}$ ) or less” as required by claim 1.

As can be seen in comparing Example 2 to Comparative Examples C1 and C2, while these compositions all employ an amorphous fluoropolymer described as LTFE-1, they differ in the level of carbon black filler used. Despite this similarity, which the Patent Office asserts must lead to inherently identical properties, Example 2 shows a Shore A hardness of 71, a TR-10 of  $-39^{\circ}\text{C}$ , and a permeation rate of 63 ( $\text{g}\cdot\text{mm}/\text{m}^2\cdot\text{day}$ ) or less, all within the limitations of claim 1. Comparative Examples C1 and C2, on the other hand, respectively show a Shore A hardness of 55 and 59, a TR-10 of  $-40$  and  $-40$ , and a permeation rate of 89 and 89.

The Applicants have shown, as demonstrated in both the Grootaert Affidavit and in these comparative examples, that even if '760 teaches a copolymer similar to that of the claim 1 (which Applicants do not admit), inclusion of such a fluoropolymer in a curable composition does not automatically lead to the composition of claim 1. The surprising combination of physical properties obtainable with the compositions described in claim 1 rebut the Patent Office assertion that such compositions are obvious in light of the description in '760.

Regarding claims 2–15, which ultimately depend from claim 1 and add patentable features thereto. When claim 1 is found to be patentable over '760, claims 2–15 must also be found patentable over Grootaert.

The Patent Office characterizes other parent claim 18 as relating to the process of making an elastomer from vulcanizing a compound of claim 1. The Patent Office then rejects remaining claims 18–20 for the same reasons given above for the rejections of claims 1–15. No additional arguments are presented. Thus, the Applicants submit that when claim 1 is found patentable over '760, claims 18–20 must also be found patentable for the same reasons provided above with respect to claim 1. Accordingly, the Applicants respectfully submit that the rejection of claims 1–15 and 18–20 as unpatentable over '760 has been overcome and kindly request that it be withdrawn.

*REJECTION OVER GROOTAERT IN VIEW OF GUERRA*

The Patent Office incorporates by reference the discussion of the disclosures of '760 for Claims 1-15 and 18-20. Regarding Claim 16, the Patent Office admits that '760 is silent about using a bisphenol curable compound. The Patent Office asserts, however, that U.S. Patent 5,384,374 (to Guerra et al.) [hereinafter '374] teaches that when curing a fluorocarbon elastomer mixture containing fluorinated ether composition, either a bisphenol curing system or a peroxide cure system can be used (citing '374, column 5, line 3-60; column 4, line 17-27).

This description from '374 does not overcome the shortcomings of '760 with respect to claim 1, as explained above. The Patent Office has not shown where '760 teaches, suggests or describes all of the limitations of parent claim 1. Furthermore, the Applicants have rebutted the Patent Office assertion that the disclosed compositions of '760 must inherently possess all of the claim limitations of parent claim 1. The Patent Office has not shown where '374 overcomes this failure of '760 to teach, suggest or describe parent claim 1.

Claim 16 depends from claim 1 and adds patentable features thereto. Therefore, the Applicants submit that when claim 1 is found patentable over '760, claim 16 must likewise be found patentable over '760 in view of '374.

Based upon the Patent Office admissions and the remarks presented above, the Applicants respectfully submit that the rejection of claim 16 over '760 in view of '374 has been overcome and kindly request that this rejection be withdrawn.

CONCLUSION

The Applicants acknowledge that the prior art made of record and not relied upon is considered by the Patent Office to be pertinent to applicants' disclosure. The Patent Office admits that US Patent No. 6,191,208 B1 to Takahashi et al. fails to teach or fairly suggest the limitations of present claims. Applicants acknowledge these shortcomings of Takahashi.

In view of the above, it is submitted that the application is in condition for allowance. Reconsideration of the application is requested.

Allowance of claims 1–16 and 18–20, as amended, at an early date is solicited. Rejoinder of claim 17 is also respectfully requested.

Respectfully submitted,

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